

### REMARKS

This is intended as a full and complete response to the Office Action dated April 1, 2008, having a shortened statutory period for response set to expire on July 1, 2008. Applicants have attached a Petition for a One Month Extension of Time, in accordance with 37 C.F.R. §1.136, extending the statutory period until August 1, 2008. Applicants respectfully request entry and consideration of the above noted amendments and the following remarks in response to the Office Action.

### CLAIM REJECTIONS:

Claims 9-12 stand rejected under 35 U.S.C. §112, first paragraph. Claims 9-12 stand rejected under 35 U.S.C. §112, second paragraph. Applicants have cancelled claims 9-12, thereby obviating the rejections. Applicants have added new claims 14-16, which correspond to the originally filed claims (*see*, claim 3) and searched subject matter. Applicants respectfully submit that the new claims are allowable over the art of record and respectfully request the same.

Claim 13 stands rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,183,866 (*Hottovy*) in view of U.S. Patent No. 5,455,314 (*Burns*) and U.S. Patent No. 5,462,998 (*Tanifuji*).

As previously discussed, *Hottovy* teaches a process constructed such that the flow time of the charge of slurry in an elongated confined zone, including a flash line heater, is equal to at least about 25% of the time between the closing of the settling leg valve and the next opening of the settling leg valve. In contrast, the pending claims recite maintaining the predetermined time interval for polymer particle removal from the settling leg by automatically controlling and adjusting air flow passing to the 180° rotating take-off valve for operation thereof. It has been observed that the use of automatic control valves and 180° valves provide precise control and adjustment of the opening time that cannot be achieved using 90° valves.

The Office Action states that "*Hottovy* does not expressly disclose the type of PTO valve" used. The Office Action further states that "it would have been obvious to a skilled artisan at the time the invention was made to employ *Burns*' or *Tanifuji*'s valve on *Hottovy*'s settling leg". Applicants respectfully disagree and further submit that even if

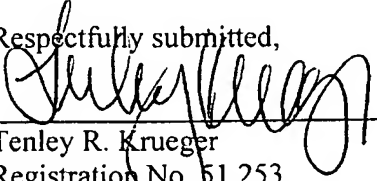
the valve of *Burns* of *Tanifuji* was employed in the teachings of *Hottovy*, such would not result in the features of the pending claims. In particular, *Burns* teaches continuously removing reaction effluent and nowhere teaches or suggests the precise control recited in claim 13 and in particular the features of amended claim 13.

Further, *Burns* teaches the use of V-notch ball valves in the primary line (loop reactor) to remove effluent. In contrast, the present application utilizes a product take off valve disposed within the settling leg to remove polymer and a pneumatic actuator regulated by a system comprising pneumatic control valves (*e.g.*, the control valves may be a V-notch ball valve) is used to drive the product take off valve. In addition, *Burns* teaches that "continuous removal of reaction effluent stabilizes reactor pressure and consequently stabilizes feed flow and other reactor conditions". As discussed above, it has been observed that the use of automatic control valves and 180° valves provide precise control and adjustment of the opening time that cannot be achieved using 90° valves. It was further observed that such precise control for intermittent removal (not continuous removal, as observed in *Burns*) of polymer particles, as recited in the pending claims, results in an unexpected stabilization of the reaction. Accordingly, Applicants respectfully request withdrawal of the rejection.

*Tanifuji* teaches vinyl chloride polymerization using ball valves in a recycle line. However, *Tanifuji* does not teach limitations missing in the primary references and therefore, it is believed that a detailed discussion of the *Tanifuji* is not deemed necessary for a full and complete response to this Office Action.

In conclusion, Applicants submit that the references cited in the Office Action, neither alone nor in combination, teach, show, or suggest the claimed features. Having addressed all issues set out in the Office Action, Applicants respectfully submit that the claims are in condition for allowance and respectfully request the same.

Respectfully submitted,



Tenley R. Krueger  
Registration No. 51,253  
T.R. Krueger, P.C.  
P.O. Box 16356

Sugar Land, Texas 77496  
Telephone: 281-778-8934  
Facsimile: 281-778-8937  
Attorney for Applicant(s)